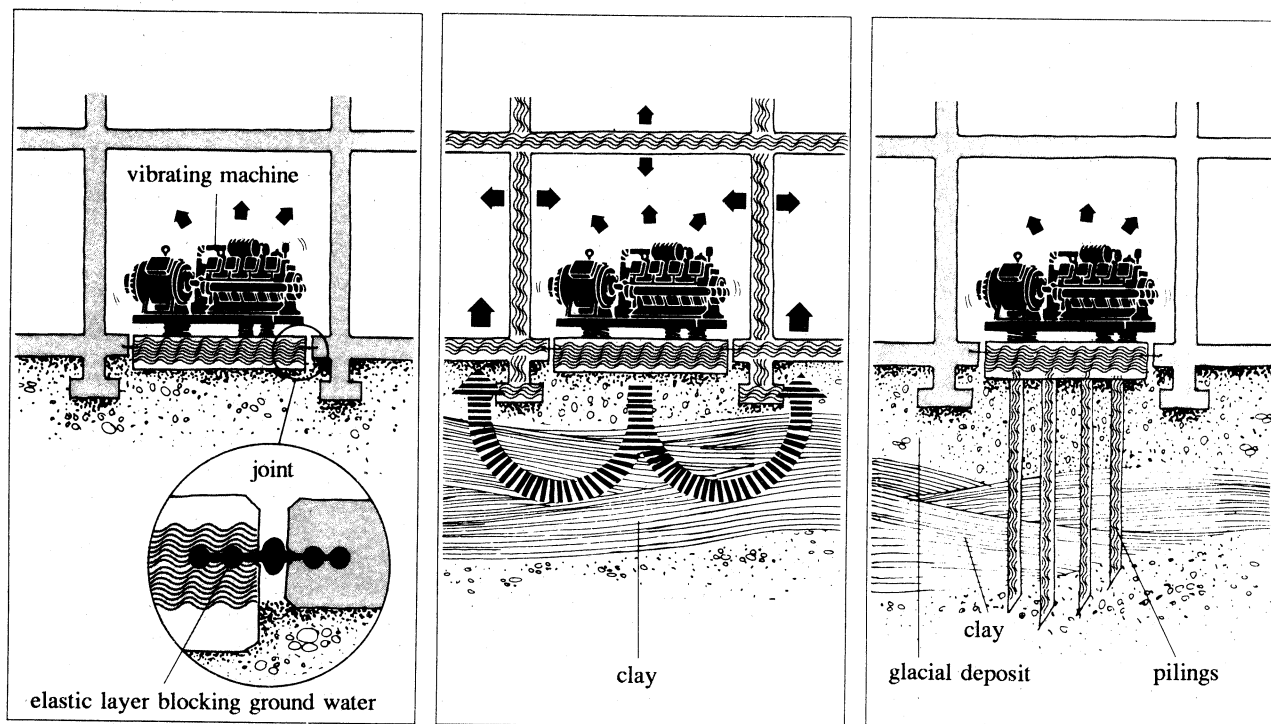


A SEPARATE FOUNDATION PROVIDES THE BEST SOLID-BORNE SOUND BARRIER

A good way to isolate very heavy machines which produce low frequency vibration is to install them on thick concrete pads which rest directly on the ground. Even more effective protection is achieved if the concrete pad is separated from the remainder of the building by means of a joint. If the ground has a clay layer, it may be necessary to place pilings beneath the plate.

Principle



Application to very heavy machines

Example

Drive motors with gearboxes connected to a paper-making machine cause both loud air noise and vibrations in the machines. They require only occasional maintenance which can generally be performed with the machines turned off. Therefore, the machines can be permitted to make large amounts of noise if the noise is prevented from entering the rest of the factory.

Control Measure

The engine room has its own thick floor slab which is in good contact with the solid ground. The large concrete base blocks are vibration isolated with corrugated rubber mats. Airborne sound is prevented from entering other factory rooms by means of a brick wall. Holes in the wall for axles to pass through are sealed with mufflers.

